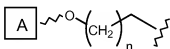


AMENDMENTS TO THE CLAIMS

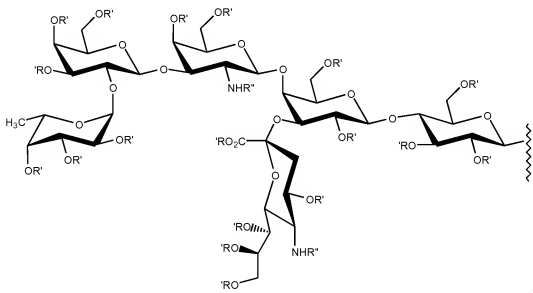
This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-55: **Canceled**

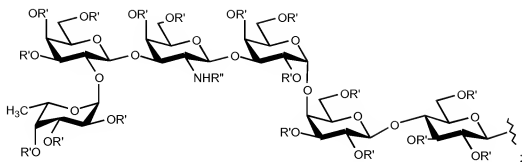
56. **(Previously Presented)** A multi-antigenic glycopeptide comprising a peptidic backbone made up of at least three amino acid residues, wherein two or more of said amino acids is independently substituted with a glycosidic moiety having the structure:



wherein each occurrence of A is independently a carbohydrate determinant selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group; and

wherein R'' is hydrogen or a nitrogen protecting group;

wherein each occurrence of n is independently 1-8 and at least one occurrence of

A has a different structure from other occurrences of A.

57. **(Canceled)**

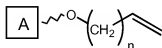
58. **(Previously Presented)** The glycopeptide of claim 56 wherein the glycopeptide is bound to an immunostimulant carrier protein, peptide or lipid.

59. **(Previously Presented)** The glycopeptide of claim 58 wherein the carrier protein is bovine serum albumin, polylysine or keyhole limpet hemocyanin.

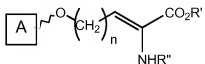
60. **(Previously Presented)** The glycopeptide of claim 58 wherein the lipid is tripalmitoyl-S-glycerylcysteinylserine.

61. **(Previously Presented)** The glycopeptide of claim 56 wherein the amino acids substituted with an n-alkyl glycosidic moiety are prepared by a process comprising steps of:

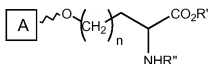
(a) providing an alkenyl glycoside having the structure:



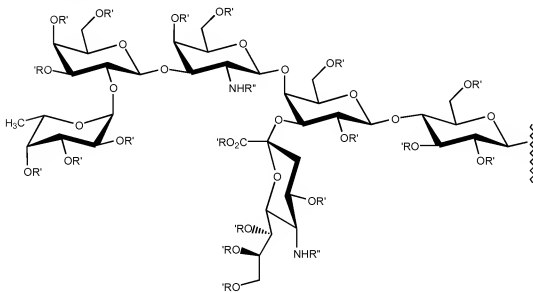
and reacting said alkenyl glycoside under suitable conditions to generate an enamide ester having the structure:



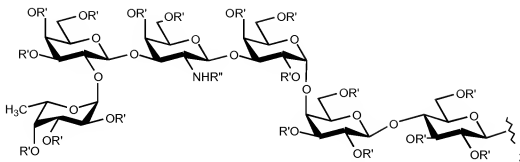
(b) reacting said enamide ester under suitable conditions to generate a glycoamino acid having the structure:



wherein, for each of the structures above, n is 1-8, wherein A is a carbohydrate domain selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, TF, and protected form thereof, a carbohydrate domain having the structure:

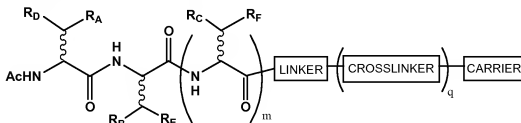


and a carbohydrate domain having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;
and wherein R'' is hydrogen or a nitrogen protecting group;
and wherein for the glycoamino acid structure R' and R'' are each independently protecting group or hydrogen.

62. **(Previously Presented)** The glycopeptide of claim 56, wherein said glycopeptide is a construct having the structure:



wherein the linker is $-O-$, $-NR_G-$, $-NR_G(CR_HR_I)_kNR_J-$, $-NR_G(CR_HR_I)_kNR_J(C=O)(CR_HR_I)_kS-$, $-(CR_HR_I)_kNR_I-$, $-O(CR_HR_I)_kNR_J$, an oligoester fragment comprising from 2 to about 20 hydroxy acyl residues, a peptidic fragment comprising from 2 to about 20 amino acyl residues, or a linear or branched chain alkyl or aryl carboxylic ester; wherein each occurrence of k is independently 1-5; and each occurrence of R_G , R_H , R_I and R_J is independently hydrogen, a linear or branched, substituted or unsubstituted, cyclic or acyclic alkyl moiety, or a substituted or unsubstituted aryl moiety;

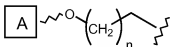
wherein the crosslinker is a moiety derived from a crosslinking reagent capable of conjugating a surface amine of the carrier with a terminal thiol of the linker;

wherein the carrier is a protein or lipid;

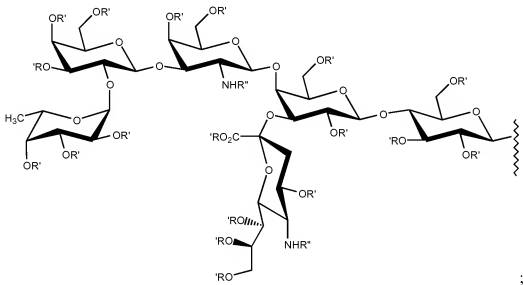
wherein m is 1, 2 or 3;

wherein q is 0 or 1;

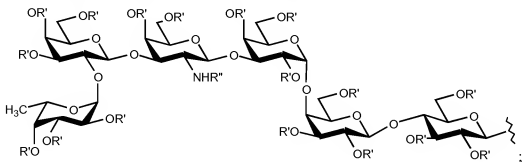
wherein each occurrence of R_A , R_B and R_C is independently H or methyl; and
 wherein each occurrence of R_D , R_E and R_F is independently an alkyl glycosidic moiety having the structure:



wherein each occurrence of A is independently selected from a carbohydrate domain selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glyphorin, STN, Le^x, N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:



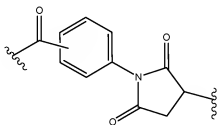
wherein each occurrence of R' is independently hydrogen or a protecting group; and
 wherein R'' is hydrogen or a nitrogen protecting group;

wherein each occurrence of n is independently 1-8; at least one occurrence of A has a different structure from other occurrences of A; and wherein the n-alkyl glycosidic moiety is either α - or β -linked to an amino acid.

63. **(Canceled)**

64. **(Canceled)**

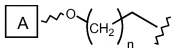
65. **(Previously Presented)** The construct of claim 62, wherein the crosslinker is a fragment having the structure:



whereby said structure is generated upon conjugation of maleimidobenzoic acid N-hydroxy succinimide ester with a linker.

66. **(Previously Presented)** The construct of claim 62, wherein m is 1 and the construct has three occurrences of A comprising Tn, Globo-H and Le^y.

67. **(Previously Presented)** The glycopeptide of claim 56 wherein the glycopeptide has six occurrences of the alkyl glycosidic moiety having the structure:



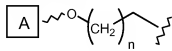
68. **(Canceled)**

69. **(Previously Presented)** The glycopeptide of claim 56 or 67 or the construct of claim 62, wherein each occurrence of A is independently Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, or TF.

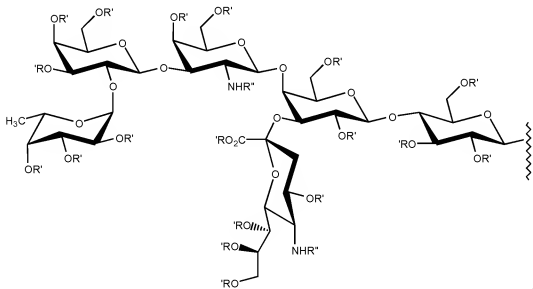
70. **(Previously Presented)** The construct of claim 62 wherein the carrier is bovine serum albumin, polylysine or keyhole limpet hemocyanin.

71. **(Previously Presented)** The construct of claim 62 wherein the carrier is tripalmitoyl-S-glycerylcysteinylserine.

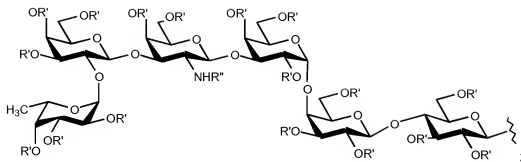
72. **(Currently Amended)** ~~The glycopeptide of claim 56 or 67 or the construct of claim 62, wherein~~ A multi-antigenic glycopeptide comprising a peptidic backbone made up of at least three amino acid residues, wherein two or more of said amino acids is independently substituted with a glycosidic moiety having the structure:



wherein each occurrence of A is independently a carbohydrate determinant selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:



wherein:

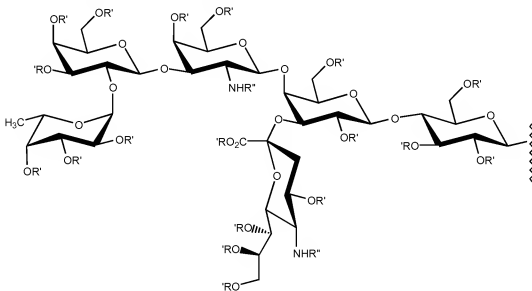
each occurrence of R' is independently hydrogen or a protecting group;

each occurrence of R'' is independently hydrogen or a nitrogen protecting group;

each occurrence of n is independently 1-8;

at least one occurrence of A has a different structure from other occurrences of A; and

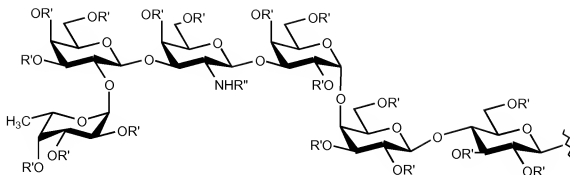
at least one occurrence of A is a carbohydrate determinant having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;

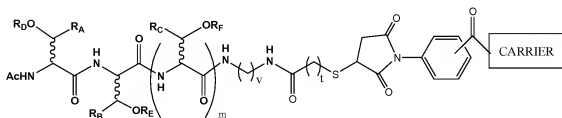
and wherein each occurrence of R'' is independently hydrogen or a nitrogen protecting group.

73. **(Previously Presented)** The glycopeptide of claim 56 or 67 or the construct of claim 62, wherein at least one occurrence of A is a carbohydrate determinant having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;
and wherein R'' is hydrogen or a nitrogen protecting group.

74. **(Previously Presented)** The construct of claim 62 having the structure:



wherein R_A , R_B and R_C are each independently H or methyl;

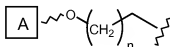
m is 1, 2 or 3;

v is 1-8;

t is 1-8; and

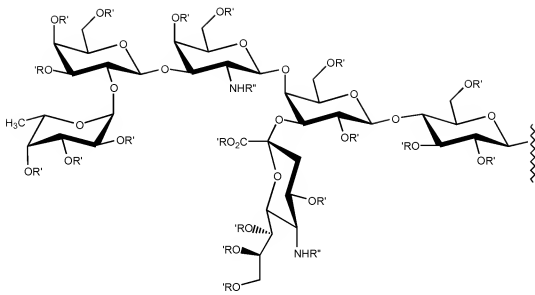
the carrier is a protein;

wherein each occurrence of R_D , R_E and R_F is independently an alkyl glycosidic moiety having the structure:

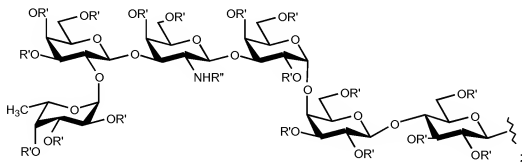


wherein n is 1-8;

each occurrence of A is independently a carbohydrate domain selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y , N3, Tn, 2,6-STn, (2,3)ST, or TF, a carbohydrate domain having the structure:



or a carbohydrate domain having the structure:

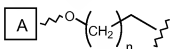


wherein each occurrence of R' is independently hydrogen or a protecting group;
and wherein R'' is hydrogen or a nitrogen protecting group
whereby at least one occurrence of A has a different structure from other
occurrences of A ; and wherein the n -alkyl glycosidic moiety is either α - or β -
linked to an amino acid.

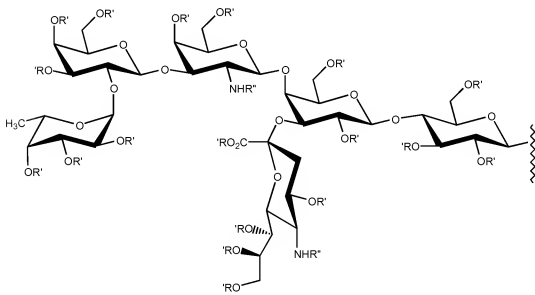
75. **(Previously Presented)** The construct of claim 74, wherein the protein is bovine serum albumin, polylysine or keyhole limpet hemocyanin.

76. **(Previously Presented)** A pharmaceutical composition comprising:
one or more immunological adjuvants and/or a pharmaceutically suitable carrier;
and

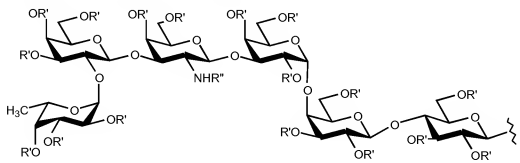
a multi-antigenic glycopeptide comprising a peptidic backbone made up of at least three amino acid residues, wherein two or more of said amino acids is independently substituted with a glycosidic moiety having the structure:



wherein each occurrence of A is a carbohydrate determinant selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;
and wherein R'' is hydrogen or a nitrogen protecting group;
wherein each occurrence of n is independently 1-8 and at least one occurrence of A has a different structure from other occurrences of A.

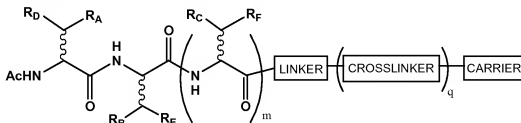
77. **(Canceled)**

78. **(Previously Presented)** The pharmaceutical composition of claim 76 wherein the glycopeptide is bound to an immunostimulant carrier protein or lipid.

79. **(Previously Presented)** The pharmaceutical composition of claim 78 wherein the carrier protein is bovine serum albumin, polylysine or keyhole limpet hemocyanin.

80. **(Previously Presented)** The pharmaceutical composition of claim 78 wherein the lipid is tripalmitoyl-S-glycerylcysteinylserine.

81. **(Previously Presented)** The pharmaceutical composition of claim 76, wherein said glycopeptide is a construct having the structure:



wherein the linker is $-O-$, $-NR_G-$, $-NR_G(CR_HR_I)_kNR_J-$, $-NR_G(CR_HR_I)_kNR_J(C=O)(CR_HR_I)_kS-$, $-(CR_HR_I)_kNR_I-$, $-O(CR_HR_I)_kNR_J$, an oligoester fragment comprising from 2 to about 20 hydroxy acyl residues, a peptidic fragment comprising from 2 to about 20 amino acyl residues, or a linear or branched chain alkyl or aryl carboxylic ester; wherein each occurrence of k is independently 1-5; and each occurrence of R_G , R_H , R_I and R_J is independently hydrogen, a linear or branched, substituted or unsubstituted, cyclic or acyclic alkyl moiety, or a substituted or unsubstituted aryl moiety;

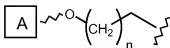
wherein the crosslinker is a moiety derived from a crosslinking reagent capable of conjugating a surface amine of the carrier with a terminal thiol of the linker;

wherein the carrier is a protein or lipid;

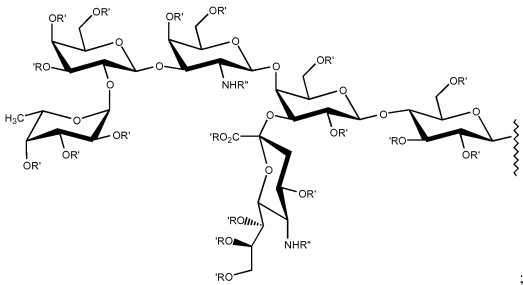
wherein m is 1, 2 or 3;

wherein q is 0 or 1;

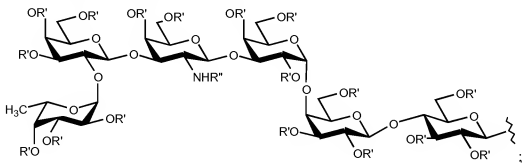
wherein each occurrence of R_A , R_B and R_C is independently H or methyl; and
 wherein each occurrence of R_D , R_E and R_F is independently an alkyl glycosidic moiety having the structure:



wherein each occurrence of A is independently selected from a carbohydrate domain selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glyophorin, STN, Le^y , N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:



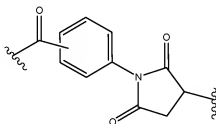
wherein each occurrence of R' is independently hydrogen or a protecting group; and
 wherein R'' is hydrogen or a nitrogen protecting group;

wherein each occurrence of n is independently 1-8 and at least one occurrence of A has a different structure from other occurrences of A; and wherein the n-alkyl glycosidic moiety is either α - or β -linked to an amino acid.

82. **(Canceled)**

83. **(Canceled)**

84. **(Previously Presented)** The pharmaceutical composition of claim 81, wherein the crosslinker is a fragment having the structure:



whereby said structure is generated upon conjugation of maleimidobenzoic acid N-hydroxy succinimide ester with a linker.

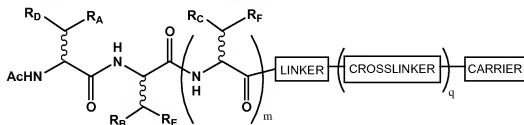
85. **(Currently Amended)** The pharmaceutical composition of claim 81, wherein m is 1 and A pharmaceutical composition comprising:

one or more immunological adjuvants and/or a pharmaceutically suitable carrier;

and

a multi-antigenic glycopeptide comprising a peptidic backbone made up of at least three amino acid residues;

wherein said glycopeptide is a construct having the structure:



wherein:

the linker is -O-, -NR_G-, -NR_G(CR_HR_I)_kNR_J-, -NR_G(CR_HR_I)_kNR_J(C=O)(CR_HR_I)_kS-, -
(CR_HR_I)_kNR_J-, -O(CR_HR_I)_kNR_J, an oligoester fragment comprising from 2 to
about 20 hydroxy acyl residues, a peptidic fragment comprising from 2 to about
20 amino acyl residues, or a linear or branched chain alkyl or aryl carboxylic
ester; wherein each occurrence of k is independently 1-5; and each occurrence
of R_G, R_H, R_I and R_J is independently hydrogen, a linear or branched, substituted
or unsubstituted, cyclic or acyclic alkyl moiety, or a substituted or unsubstituted
aryl moiety;

the crosslinker is a moiety derived from a crosslinking reagent capable of
conjugating a surface amine of the carrier with a terminal thiol of the linker;

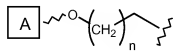
the carrier is a protein or lipid;

m is 1;

q is 0 or 1;

each occurrence of R_A, R_B and R_C is independently H or methyl; and

each occurrence of R_D, R_E and R_F is independently an alkyl glycosidic moiety having
the structure:



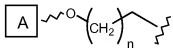
wherein:

each occurrence of n is independently 1-8;

at least one occurrence of A has a different structure from other occurrences of A; and

the construct has three occurrences of A comprising Tn, Globo-H and Le^y.

86. **(Previously Presented)** The pharmaceutical composition of claim 76, wherein the
glycopeptide has six occurrences of the alkyl glycosidic moiety having the structure:



87. **(Canceled)**

88. **(Previously Presented)** The pharmaceutical composition of claim 76, 81 or 86,

wherein each occurrence of A is independently Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, or TF.

89. **(Previously Presented)** The pharmaceutical composition of claim 81 or 86 wherein the carrier is bovine serum albumin, polylysine or keyhole limpet hemocyanin.

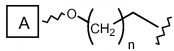
90. **(Previously Presented)** The pharmaceutical composition of claim 81 or 86 wherein the carrier is tripalmitoyl-S-glycerylcysteinylserine.

91. **(Currently Amended)** ~~The pharmaceutical composition of claim 76, 81 or 86, a~~ pharmaceutical composition comprising:

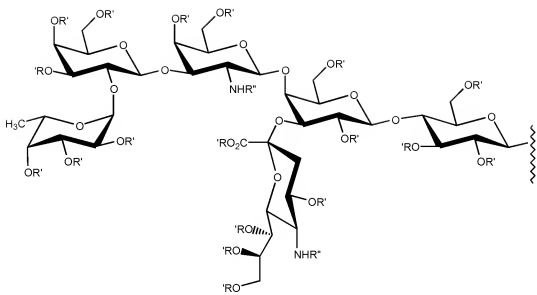
one or more immunological adjuvants and/or a pharmaceutically suitable carrier;

and

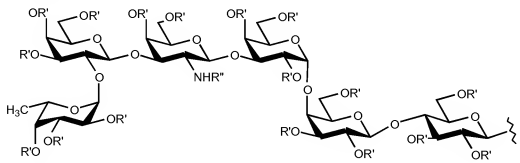
a multi-antigenic glycopeptide comprising a peptidic backbone made up of at least three amino acid residues, wherein two or more of said amino acids is independently substituted with a glycosidic moiety having the structure:



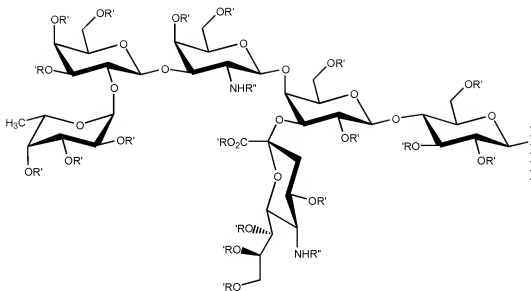
wherein each occurrence of A is a carbohydrate determinant selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:

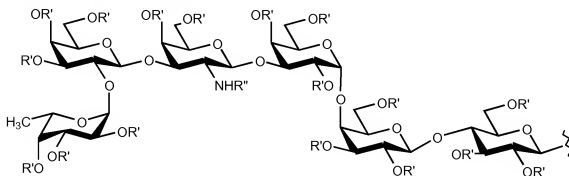


wherein each occurrence of R' is independently hydrogen or a protecting group;
 and wherein R'' is hydrogen or a nitrogen protecting group;
 wherein each occurrence of n is independently 1-8 and at least one occurrence of A has a
 different structure from other occurrences of A;
 wherein at least one occurrence of A is a carbohydrate determinant having the structure:



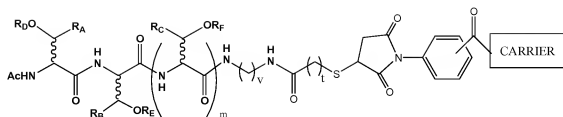
wherein each occurrence of R' is independently hydrogen or a protecting group;
and wherein each occurrence of R'' is independently hydrogen or a nitrogen protecting group.

92. **(Previously Presented)** The pharmaceutical composition of claim 76, 81 or 86, wherein at least one occurrence of A is a carbohydrate determinant having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;
and wherein R'' is hydrogen or a nitrogen protecting group.

93. **(Previously Presented)** The pharmaceutical composition of claim 81, wherein the construct has the structure:



wherein R_A , R_B and R_C are each independently H or methyl;

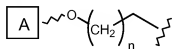
m is 1, 2 or 3;

v is 1-8;

t is 1-8; and

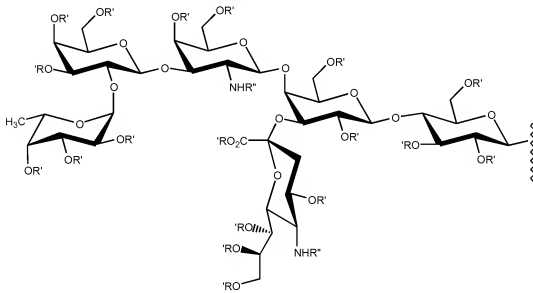
the carrier is a protein;

wherein each occurrence of R_D , R_E and R_F is independently an alkyl glycosidic moiety having the structure:

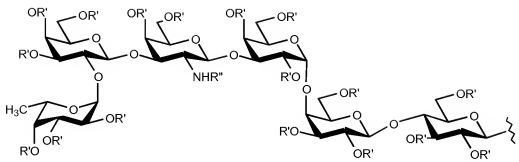


wherein n is 1-8;

each occurrence of A is independently a carbohydrate domain selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y , N3, Tn, 2,6-STn, (2,3)ST, or TF, a carbohydrate domain having the structure:



or a carbohydrate domain having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;

and wherein R'' is hydrogen or a nitrogen protecting group

whereby at least one occurrence of A has a different structure from other occurrences of A; and wherein the n-alkyl glycosidic moiety is either α - or β -linked to an amino acid.

94. **(Previously Presented)** The pharmaceutical composition of claim 93, wherein the protein is bovine serum albumin, polylysine or keyhole limpet hemocyanin.

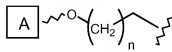
95. **(Previously Presented)** The pharmaceutical composition of claim 76 wherein at least one of said one or more immunological adjuvants is a saponin adjuvant.

96. **(Currently Amended)** ~~The pharmaceutical composition of claim 95, A~~
pharmaceutical composition comprising:

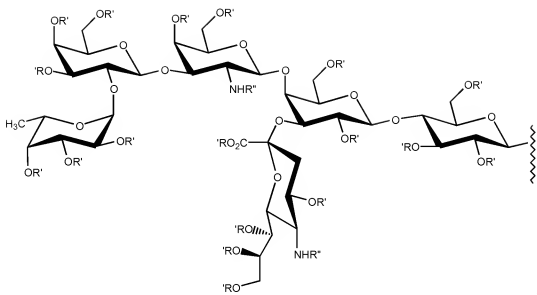
one or more immunological adjuvants and/or a pharmaceutically suitable carrier;

and

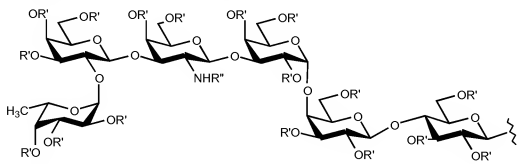
a multi-antigenic glycopeptide comprising a peptidic backbone made up of at least three amino acid residues, wherein two or more of said amino acids is independently substituted with a glycosidic moiety having the structure:



wherein each occurrence of A is a carbohydrate determinant selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y, N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



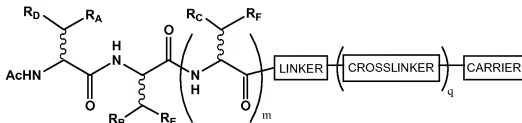
and a carbohydrate domain having the structure:



wherein each occurrence of R' is independently hydrogen or a protecting group;
 and wherein R'' is hydrogen or a nitrogen protecting group;
 wherein each occurrence of n is independently 1-8 and at least one occurrence of A has a different structure from other occurrences of A;
 wherein at least one of said one or more immunological adjuvants is ~~wherein the~~ saponin adjuvant is GPI-0100.

97. **(Previously Presented)** The pharmaceutical composition of claim 76 wherein at least one of said one or more immunological adjuvants is bacteria or liposomes.
98. **(Previously Presented)** The pharmaceutical composition of claim 97 wherein the immunological adjuvant is Salmonella minnesota cells, bacille Calmette-Guerin or QS21.

99. (New) The glycopeptide of claim 72, wherein said glycopeptide is a construct having the structure:



wherein:

the linker is $-O-$, $-NR_G-$, $-NR_G(CR_HR_I)_kNR_J-$,

$-NR_G(CR_HR_I)_kNR_J(C=O)(CR_HR_I)_kS-$, $-(CR_HR_J)_kNR_J-$, $-O(CR_HR_I)_kNR_J$, an oligoester fragment comprising from 2 to about 20 hydroxy acyl residues, a peptidic fragment comprising from 2 to about 20 amino acyl residues, or a linear or branched chain alkyl or aryl carboxylic ester; wherein each occurrence of k is independently 1-5; and each occurrence of R_G , R_H , R_I and R_J is independently hydrogen, a linear or branched, substituted or unsubstituted, cyclic or acyclic alkyl moiety, or a substituted or unsubstituted aryl moiety;

the crosslinker is a moiety derived from a crosslinking reagent capable of conjugating a surface amine of the carrier with a terminal thiol of the linker;

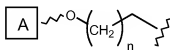
the carrier is a protein or lipid;

m is 1, 2 or 3;

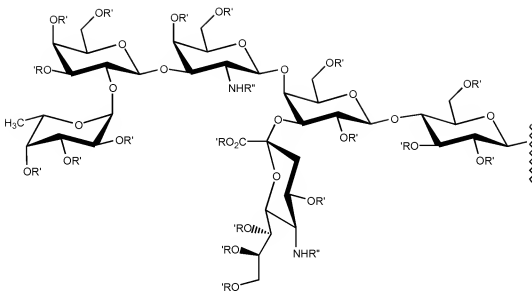
q is 0 or 1;

each occurrence of R_A , R_B and R_C is independently H or methyl; and

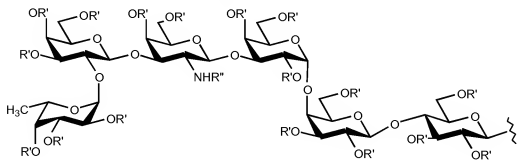
each occurrence of R_D , R_E and R_F is independently an alkyl glycosidic moiety having the structure:



wherein each occurrence of A is independently selected from a carbohydrate domain selected from the group consisting of Globo-H, fucosyl GM1, KH-1, glycophorin, STN, Le^y , N3, Tn, 2,6-STn, (2,3)ST, TF, a carbohydrate domain having the structure:



and a carbohydrate domain having the structure:

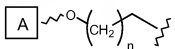


wherein each occurrence of R' is independently hydrogen or a protecting group;

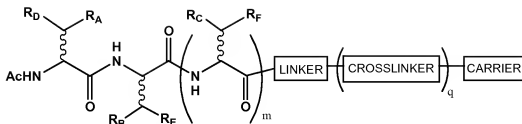
and wherein R'' is hydrogen or a nitrogen protecting group;

wherein each occurrence of n is independently 1-8; at least one occurrence of A has a different structure from other occurrences of A; and wherein the n-alkyl glycosidic moiety is either α - or β -linked to an amino acid.

100. **(New)** The glycopeptide of claim 72, wherein the glycopeptide has six occurrences of the alkyl glycosidic moiety having the structure:



101. **(New)** The pharmaceutical composition of claim 85 or 91, wherein said glycopeptide is a construct having the structure:



wherein the linker is $-O-$, $-NR_G-$, $-NR_G(CR_HR_I)_kNR_J-$, $-$

$NR_G(CR_HR_I)_kNR_J(C=O)(CR_HR_I)_kS-$, $-(CR_HR_I)_kNR_I-$, $-O(CR_HR_I)_kNR_J$, an

oligoester fragment comprising from 2 to about 20 hydroxy acyl residues, a

peptidic fragment comprising from 2 to about 20 amino acyl residues, or a linear

or branched chain alkyl or aryl carboxylic ester; wherein each occurrence of k is

independently 1-5; and each occurrence of R_G , R_H , R_I and R_J is independently

hydrogen, a linear or branched, substituted or unsubstituted, cyclic or acyclic

alkyl moiety, or a substituted or unsubstituted aryl moiety;

wherein the crosslinker is a moiety derived from a crosslinking reagent capable of

conjugating a surface amine of the carrier with a terminal thiol of the linker;

wherein the carrier is a protein or lipid;

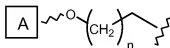
wherein m is 1

wherein q is 0 or 1;

wherein each occurrence of R_A , R_B and R_C is independently H or methyl; and

wherein each occurrence of R_D , R_E and R_F is independently an alkyl glycosidic

moiety having the structure:



and wherein the n -alkyl glycosidic moiety is either α - or β -linked to an amino acid.

102. **(New)** The pharmaceutical composition of claim 91, wherein the glycopeptide has six occurrences of the alkyl glycosidic moiety having the structure:

